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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,338	04/11/2008	William Armstrong	330499.00045	9345
27160 7590 10/04/2011 KATTEN MUCHIN ROSENMAN LLP (C/O PATENT ADMINISTRATOR) 2900 K STREET NW, SUITE 200 WASHINGTON, DC 20007-5118				
EXAMINER				
EDWARDS, LYDIA E				
ART UNIT		PAPER NUMBER		
1775				
MAIL DATE		DELIVERY MODE		
10/04/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/567,338

**Applicant(s)**

ARMSTRONG ET AL.

**Examiner**

LYDIA EDWARDS

**Art Unit**

1775

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/11/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-28 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-28 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 2/6/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/100)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date 2/6/2006 and 7/14/2006

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 8-10, claims 8-10 teach wherein the liquid is gas enriched however, "enriched" has not been defined and the examiner is unclear how this further limits the device of claim 7.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 11, 14, 17, 20-21, 23-25 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by (Palsson et al. US 5888807).

Regarding Claims 1-6, 11, 14, 17, 20-21, 23-25 and 28, Palsson et al. ('807) teaches a device for maintaining and growing human stem cells and/or hematopoietics cells wherein Gas is supplied to gas chamber [615] of bioreactor [902] either from a cylinder (gas reservoir) [904] containing premixed gases (a mixture of 1-50% (v/v), preferably 5-20% (v/v) O<sub>2</sub>, 5% (V/V) CO<sub>2</sub>

and the balance  $N_2$ ) or is simply taken from the inside of an incubator (not shown) (typically a mixture of air and 5% (v/v)  $CO_2$ ). The gas may be pumped with a pump (not shown) through a sandstone in a standard cell culture humidifier [906] to give the gas mixture being delivered to gas chamber [615] relative humidities as close to 100% as possible. Gas (outlet) line [907] can optionally contain a sterile filter [905] of which the examiner deems to be a functional equivalent to that of a gas permeable membrane (See Col 20, lines 11-44; Col 23, lines 28-40; Figures 6f, 6g and 9).

Regarding Claims 2-3, with respect to the intended use limitations, the device disclosed by Pålsson et al. is structurally the same as the instantly claimed and is capable of providing the operating conditions listed in the intended use section of the claim. Note statements of intended use carry no patentable weight when the structure of the Claim has been met by the prior art reference.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7-10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over (Palsson et al. US 5888807).

Regarding Claims 7-10, Palsson et al. ('807) does not disclose wherein the fluid comprises a liquid.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a liquid, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding Claims 12-13, Palsson et al. ('807) does not disclose the use of 1-methyl 5 cyclopropene.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ 1-methyl 5 cyclopropene, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Claims 15-19, 22 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over (Palsson et al. US 5888807) in view of Armstrong et al. (US 4906577).

Regarding Claims 15-19, 22 and 26-27, Palsson et al. ('807) is silent towards the cultured cells comprising a plant, a bacterial, or a yeast cell.

Armstrong et al. ('577) teaches wherein cells to be cultured in this invention are viable, growing or non-growing, prokaryotic and eukaryotic cells such as bacteria, yeast, plant, animal and human cells (See Col 1, lines 5-9; Col 8, lines 30-37).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a plant, a bacterial, or a yeast cell for culture, since it was well known in the art as evidenced by Armstrong et al. In addition, Palsson et al. teaches that the bioreactors are provided in which diverse cell types are simultaneously-cultured in the presence of the appropriate levels of nutrients and growth factors (see Abstract).

Regarding Claim 16, with respect to the intended use limitations, the device disclosed by the combination of Palsson et al. and Armstrong et al. is structurally the same as the instantly claimed and is capable of providing the operating conditions listed in the intended use section of the claim. Note statements of intended use carry no patentable weight when the structure of the Claim has been met by the prior art reference.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYDIA EDWARDS whose telephone number is (571)270-3242. The examiner can normally be reached on Mon-Thur 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Marcheschi can be reached on 571.272.1374. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael A Marcheschi/  
Supervisory Patent Examiner, Art Unit 1775

/LYDIA EDWARDS/  
Examiner  
Art Unit 1775

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